Product Specification

8-Port 10/100/1000Mbps 802.3at PoE Desktop Switch

GSD-808HP

Version 4.0

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Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2011/9/8	Marc Liao	Initial Release
Version 2.0	2012/5/14	Marc Liao	PoE Controller Chip Replacement PD64004AH to PD69104BILQ
Version 3.0	2013/1/22	Bryant Wu	Change Hardware Layout
Version 4.0	2014/4/30	Bryant Wu	RTL8370GR changes to RTL8370N

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Reviewed By:	Kent Kang	**Approved By:**	Tom Shih

1. PRODUCT DESCRIPTION

High Power PoE for Security and Public Service Applications

To fulfill the demand of High Power PoE for network applications with Gigabit transmission, PLANET 802.3at PoE Gigabit Switch GSD-808HP is an ideal solution. Each Gigabit port of the GSD-808HP features **IEEE 802.3af** and **IEEE 802.3at High Power** PoE capabilities that combines up to **130 Watts** power output and data per port over one Cat.5E / 6 Ethernet cable. With totally **130 Watts** PoE budget on whole system, the GSD-808HP is designed specifically to satisfy the growing demand of higher power consuming network PD (powered devices) such as **PTZ** (Pan, Tilt & Zoom) / **Speed Dome network cameras**, multi-channel (802.11a/b/g/n) wireless LAN access points and other network devices by providing double PoE power than conventional 802.3af PoE currently.

Automatic PoE Management

To facilitate power management, the GSD-808HP implements powerful PoE intelligent features:

- **PoE Power Usage Threshold Alarm**
- **PoE Power Budget Control**

The GSD-808HP helps users to manage PoE power usage easily and efficiently by its intelligent PoE features and LED indications, there are two orange LEDs named **"PoE Power Usage"** located on left side of the GSD-808HP front panel. Of which, one LED indicates the total PoE power output of Port 1-4 and the other LED shows the total PoE power output of Port 5-8. When Port 1-4 or 5-8 PoE output is over 80%, the LED will light up to notify customers for better PoE allocation. If the power output is over 95%, the LED will blink to warn customers.

Energy-Saving

The GSD-808HP uses new engine that incorporates one advanced Green Networking technologies:

- **Idle Mode Link Down power saving**
- **Intelligent Scales Power based on cable length**

The Idle mode Link Down power saving of the GSD-808HP complies with IEEE 802.3az Energy Efficient Ethernet (EEE) standard to automatically lower power for a given port when it is not linked.

Easy Installation & Cable Connection

Providing data transfer and High Power PoE in one unit, the GSD-808HP shall reduce the need of extension cables and dedicated electrical outlets on the wall, ceiling or any unreachable place. It helps to lower the installation costs and simplify the installation effort. All RJ-45 copper interfaces in the GSD-808HP support 10/100/1000Mbps Auto-Negotiation for optimal speed detection through RJ-45 Category 6, 5 or 5e cables. It also supports standard Auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

2. PRODUCT FEATURES

- **RJ-45 Interface**
  - ☐ 8-Port 10/100/1000Mbps Gigabit Ethernet ports
  - ☐ 8-Port supports 52V DC power to PoE Powered Device

- **Power over Ethernet**
  - ☐ Comply with IEEE 802.3af / IEEE 802.3at Power over Ethernet End-Span PSE
  - ☐ Up to 8 IEEE 802.3af / IEEE 802.3at devices powered
  - ☐ Supports PoE Power up to 30 watts for each PoE port
  - ☐ Auto detect powered device (PD)
  - ☐ Circuit protection prevents power interference between ports
  - ☐ PoE Usage Alarm LED
  - ☐ Remote power feeding up to 100m

- **Switching**
  - ☐ Hardware based 10/100/1000Mbps Auto-Negotiation and Auto MDI/MDI-X
  - ☐ Flow control for full duplex operation and back pressure for half duplex operation
  - ☐ Integrates address look-up engine, supporting 8K absolute MAC addresses
  - ☐ 9K Jumbo Frame supports at all speed (10/100/1000Mbps)
  - ☐ Automatic address learning and address aging
  - ☐ Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

- **Hardware**
  - ☐ 12-inch desktop size, 1U height
  - ☐ LED indicators for PoE ready, PoE activity and PoE Usage Alarm
  - ☐ Fanless design
  - ☐ Ethernet Link Energy-Saving technology
    - Link down power saving
    - Intelligent scales power based on cable length

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Switch ASIC:	Realtek RTL8370N x1	X1
PoE Controller:	PowerDsine PD69104B	X2

3.2 FUNCTION SPECIFICATIONS

Model	**GSD-808HP** 8-Port 10/100/1000Mbps 802.3at PoE Desktop Switch
Hardware Specification	
Hardware Version	4
Network Connector	8-Port RJ-45 for 10/100/1000Base-TX
PoE Inject Port	8-Port with 802.3af / 802.3at PoE injector function
LED Display	System: Power (**Green**) PoE Usage Alarm: 1-4 (**Orange**) 5-8 (**Orange**) Per port : PoE in-use (**Orange**) 1000 LNK/ACT (**Green**) 10/100 LNK/ACT (**Orange**)
Switch Architecture	Store and Forward switch architecture
MAC Address	8K MAC address table with Auto learning function
Switch Fabric	16Gbps
Switch Throughput	11.9Mpps@64Bytes
Jumbo Packet Size	9K Bytes
Flow Control	Back pressure for half-duplex. IEEE 802.3x Pause frame for full-duplex
Power Requirement	AC 100~240V, 50/60Hz, 2A max.
Power Consumption	Max. 150 watts / 511 BTU
Dimension (W x D x H)	280 x 180 x 44 mm
Weight	1.67kg
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet / PSE IEEE 802.3at Enhancement Power over Ethernet / PSE
PoE Power Supply Type	End-Span
PoE Power Output	Per Port 52V DC, 275mA. Max. 15.4 Watts (IEEE 802.3af) Per Port 52V DC, 535mA. Max. 30 Watts (IEEE 802.3at)
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Budget	130 watts
Max. number of Class 2 PD	8

Max. number of Class 3 PD	8
Max. number of Class 4 PD	4
Environment	
Operating environment	0 ~ 50 degrees C
Storage environment	-40 ~ 70 degrees C
Operating Humidity	5 ~ 95%, relative humidity, non-condensing
Storage Humidity	5 ~ 95%, relative humidity, non-condensing
Standard Conformance	
Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at Enhancement Power over Ethernet IEEE 802.3az Energy-Efficient Ethernet
Regulation Compliance	FCC Class B, CE

3.3 PHYSICAL SPECIFICATIONS:

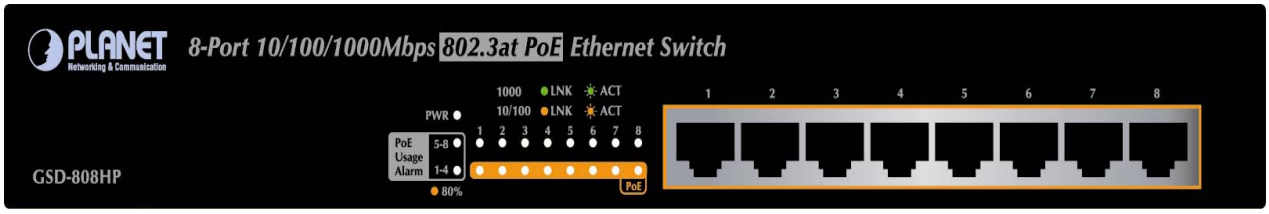
- **Dimensions:**

  280 x 180 x 44mm (W x D x H), 1U height

- **Weight:**

  1.67kg

- **Front Panel:**



- **Rear Panel:**

■ **LED Definition**

■ **System**

LED	Color	Function
PWR	**Green**	**Light:** Indicate the Switch has power.

▪ **Per 10/100/1000Mbps Port**

LED	Color	Function
1000 LNK/ACT	**Green**	**Light**: Indicate the link through that port is successfully established at 1000Mbps. **Blink**: Indicate that the Switch is actively sending or receiving data over that port.
10/100 LNK/ACT	**Orange**	**Light**: Indicate the link through that port is successfully established at 10/100Mbps. **Blink**: Indicate that the Switch is actively sending or receiving data over that port.
PoE In Use	**Orange**	**Light:** Indicate the port is providing 52V DC in-line power.

▪ **PoE Usage Alarm Port**

LED	Color	Function
1-4	**Orange**	**Light:** Indicate the PoE Usage is over 80% **Blink**: Indicate the PoE Usage is over 95%
5-8	**Orange**	**Light:** Indicate the PoE Usage is over 80% **Blink**: Indicate the PoE Usage is over 95%

3.4 ENVIRONMENTAL SPECIFICATION

Operating:

Temperature: 0°C ~ 50 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -40°C ~ 70 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

Input Voltage:	100 - 240V AC, 50 - 60Hz, 2A. Auto-sensing.	
Power Consumption	110V: 4.9 watts	16BTU
(System on):	220V: 5.0 watts	17BTU
Power Consumption	110V: 6 watts	20BTU
(Ethernet Full Load):	220V: 6.2 watts	21BTU
Power Consumption	110V: 145 watts*	491BTU

(PoE Full Load):	220V: 145 watts*	491BTU

* With total PoE power output be limited at 130 watts

3.6 REGULATORY COMPLIANCE

FCC Class B, CE.

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- GSD-808HP x1
- User's Manual x1
- 19” Rack Mount Accessory Kit x1
- Rubber Feet x4
- Power Cord x 1

3.9 PACKING DIMENSION

Dimension: Box	425 mm (W) × 226 mm (D) × 72 mm (H)
Dimension: Carton	460 mm (W) × 385 mm (D) × 245 mm (H)
Weight(Total):	11.5kg (Gross Weight)
	5pcs in one carton